

**ABSTRACT**

A system for delivering a guide wire to an artery and a side branch vessel of the artery includes a delivery catheter and a pair of guide wires. The delivery catheter includes a first lumen with a first opening and a second lumen with a second opening. The first guide  
5 wire is configured to extend through the first lumen and the second guide wire is configured to extend through the second lumen. The first opening is configured to direct the first guide wire into the side branch vessel, and the second opening is configured to direct the second guide wire into the main artery.